

DESCRIPTION

Source Chinese Hamster Ovary cell line, CHO-derived human RECK protein
Gly27-Pro941, with a C-terminal 6-His tag
Accession # O95980

N-terminal Sequence Analysis Gly27

Predicted Molecular Mass 102 kDa

SPECIFICATIONS

SDS-PAGE 103 - 122 kDa, under reducing conditions

Activity Measured by its binding ability in a functional ELISA.
When Recombinant Human RECK His-tag (Catalog # 10236-RE) is immobilized at 2 µg/mL (100 µL/well), Biotinylated Recombinant Human TEM5/GPR124 His-tag binds with an ED₅₀ of 0.7-4.9 µg/mL.

Endotoxin Level <0.10 EU per 1 µg of the protein by the LAL method.

Purity >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation Lyophilized from a 0.2 µm filtered solution in Tris and NaCl. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 250 µg/mL in water.

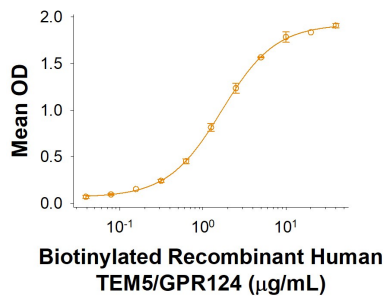
Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

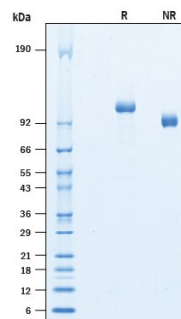
DATA

Binding Activity



When Recombinant Human RECK His-tag (Catalog # 10236-RE) is immobilized at 2 µg/mL (100 µL/well), Biotinylated Recombinant Human TEM5/GPR124 His-tag binds with an ED₅₀ of 0.7-4.9 µg/mL.

SDS-PAGE



2 µg/lane of Recombinant Human RECK His-tag was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing a band at ~110 kDa under reducing conditions.

BACKGROUND

Reversion-inducing cysteine-rich protein with Kazal motifs (RECK), also known as Suppressor of tumorigenicity 15 protein (ST15), is a 971 amino acid highly conserved protein that serves as an important mediator of tissue remodeling (1). The multi-domain protein includes hydrophobic regions at the N- and C-termini that correspond to a signal domain and GPI anchoring site, respectively (2). Internally, there are three serine protease inhibitor-like (SPI) domains and two regions with EGF-like repeats (2). The N-terminal region also contains a cysteine-rich domain essential for MMP (3) and Wnt7 binding (4, 5). RECK is normally expressed in all human and mammalian cells (2, 6) while undetectable or downregulated in malignant and cancer cells (1, 2). There is a strong correlation with expression of RECK in several cancers including colorectal, breast, and pancreatic making it a prognostic marker of interest (1, 3, 7-9). Polymorphisms in RECK leads to increased cancer susceptibility (10). RECK's ability to bind several proteins confers complex functionality. RECK is known to bind and inhibit MMPs (1, 2, 11), interact with ADAMTS10 (12), modulate Notch signaling (13), promote p53 signaling (14) and act as a selective Wnt7 receptor through binding of Gpr124 (4). RECK acts as a tumor suppression gene by inhibiting angiogenesis, invasion, and metastasis through its role in the regulation and signaling within the extracellular matrix (1, 3, 6). Through its interaction with Wnt7, RECK promotes angiogenesis and regulates the blood-brain barrier in CNS by mediating canonical Wnt/beta-catenin signaling (4).

References:

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